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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional): Boer 8-28-6-6

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on _____

Signature _____

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Application Number	Filed
10/672,657	9/26/2003

First Named Inventor: Boer et al.

Art Unit	Examiner
2464	Pawaris Sinkantarakorn

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal

The review is requested for the reason(s) stated on the attached sheet(s)
Note: No more than five (5) pages may be provided.

I am the

- [ ] applicant/inventor
- [ ] assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3 73(b) is enclosed (Form PTO/SB/96)
- [X] attorney or agent of record. Registration number 36,597
- [ ] attorney or agent acting under 37 CFR 1 34. Registration number if acting under 37 CFR 1 34 _____

Kevin M. Mason
Signature

Kevin M. Mason
Typed or printed name

(203) 255-6560
Telephone number

May 24, 2010
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

- [ ] *Total of _____ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

Applicant(s):	Boer et al.
Case:	8-28-6-6
Serial No.:	10/672,657
Filing Date:	September 26, 2003
Group:	2464
Examiner:	Pawaris Sinkantarakorn
Title:	Method and Apparatus for Detecting a Collision in a Carrier Sense Multiple Access Wireless System

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MEMORANDUM IN SUPPORT OF
PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The present invention and prior art have been summarized in Applicants' prior responses.

STATEMENT OF GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The present application was filed on September 26, 2003 with claims 1 through 23. Claims 11-17 were cancelled in the Amendment and Response to Office Action dated March 7, 2008. Claims 1-10 and 18-23 are presently pending in the above-identified patent application. Claims 18-23 are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter, and claims 1-10 and 18-23 are rejected under 35 U.S.C. §103(a) as being unpatentable over Wang (United States Patent No. 5,721,733) and Currivan et al. (United States Patent Application Publication Number 2003/0026283) in view of Kanterakis et al. (United States Patent No. 6,169,759).

REMARKS

Section 101 Rejections

Claims 18-23 were rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. In particular, the Examiner asserts that, while the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

Applicants note that independent claim 18 requires a wireless communication network and is therefore tied to another statutory category. In addition, independent claim 18 requires wherein one or more of said steps are performed by a processor.

Thus, Applicants respectfully request that the section 101 rejections be withdrawn.

Independent Claims 1 and 18

Independent claim 1 and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Wang and Currivan et al. in view of Kanterakis et al. In particular, the Examiner asserts that Wang discloses a collision detector that monitors a wireless medium for collisions of the acknowledgement message (col. 5, line 66, to col. 6, line 8). Applicants also note that the Examiner acknowledges that Wang does not disclose that the collision detector evaluates an energy level, preamble detcction, and payload detection. The Examiner asserts, however, that Currivan et al. discloses a collision detector that monitors for collisions based on an energy level and preamble detection (paragraphs 55-58 and 70-78; a collision is detected based on a SNR indication signal and a threshold signal and a preamble detection; where the SNR indication signal represents a ratio of signal energy level and noise energy level; for example, an in-phase collision is detected when the output signal 459 is low and the output signal 457 is high, where the output signal 459 is related to the SNR indication signal 438 and the output signal 457 is related to the power indication signal). Furthermore, the Examiner acknowledges that Wang and Currivan do not expressly disclose a collision detector that monitors for collisions based on payload detection, but asserts that Kanterakis discloses this limitation (col. 6, lines 45-50, and col. 9, lines 8-17).

Applicants note that independent claims 1 and 18 require a controller *configured to monitor for an acknowledgement (ACK) message* transmitted by a second wireless communication device in response to a message transmitted by said first wireless communication device, and a collision detector that monitors a wireless medium for collisions of said acknowledgement message *based on a comparison of an energy level and an energy level threshold, preamble detection, and payload detection*. Support for this limitation can be found on page 7, lines 10-20, of the originally filed disclosure.

First, as the Examiner acknowledges, Wang does not disclose a collision detector that monitors a wireless medium for collisions *based on an energy level, preamble detection, and payload detection*.

Applicants also note that, in par. 0076 of Currivan et al., it is clear that output signal 457 indicates the power of the data portion of a burst transmission. In Table 1, it is clear that output signal 457 does ***not*** correlate with whether a collision is detected. In fact, a collision can be detected if the output signal 457 is high (second row), medium (fourth row), low (sixth row) or high (seventh row). Thus, a collision is *not* detected in Currivan et al. *based on a comparison of an energy level and an energy level threshold,* as required by independent claims 1 and 18.

Regarding the Examiner's previous assertion that Currivan discloses that a collision is detected when the output signal 459 indicates the average SNR of a burst transmission is low, Applicants note that a SNR is a *signal-to-noise* ***ratio*** and is *not* a measured *energy level* (i.e., not a measured level of energy), as would be apparent to a person of ordinary skill in the art. Thus, Currivan does *not* disclose or suggest determining an *energy level* or monitoring said wireless communication network to detect a collision of said acknowledgement message *based on a comparison of an energy level and an* ***energy level threshold*** or *based on a comparison of an energy level and an* ***energy level threshold****, preamble detection, and payload detection.*

In the Response to Arguments section of the final Office Action, the Examiner asserts that Currivan teaches that a collision is detected based on a SNR indication signal and a threshold signal, where the SNR indication signal represents a ratio of (a) signal energy level and (a) noise energy level, and that Currivan therefore discloses a collision based on a comparison of

an energy level and an energy level threshold.

Contrary to the Examiner's assertion (and as noted above), a SNR is a *signal-to-noise* ***ratio*** and is *not* a measured *energy level* (i.e., not a measured level of energy), as would be apparent to a person of ordinary skill in the art. Furthermore, the generation of a SNR indication signal (a *signal-to-noise* ***ratio***) requires calculating a ratio of a signal energy level and a noise energy level; an *energy level* ***threshold*** is *not* required for this calculation. ***Moreover, Currivan does not disclose or suggest an energy level threshold in this context.***

Thus, even as combined in the manner suggested by the Examiner, Wang and Currivan *do not teach every element of the independent claims.* Furthermore, based on the KSR considerations discussed hereinafter, the combination/modification suggested by the Examiner is not appropriate.

KSR Considerations

An Examiner must establish "an apparent reason to combine ... known elements." *KSR International Co. v. Teleflex Inc. (KSR)*, 550 U.S. ___, 82 USPQ2d 1385 (2007). Here, the Examiner merely states that it would have been obvious to implement a collision detection module as taught by Currivan into the collision detecting apparatus of Wang since it enables accurate detection of collisions.

Applicants are claiming a new technique for collision detection in a communication network. There is *no* suggestion in Wang or in Currivan, alone or in combination, for a collision detector that monitors a wireless medium for collisions of said acknowledgement message *based on a comparison of an energy level and an energy level threshold, based on a comparison of an energy level and an energy level threshold and preamble detection* or *based on a comparison of an energy level and an energy level threshold, preamble detection, and payload detection.*

Currivan's teaching to utilize a SNR ratio ***teaches away*** from the present invention. The *KSR* Court discussed in some detail United States v. Adams, 383 U.S. 39 (1966), stating in part that in that case, "[t]he Court relied upon the corollary principle that when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious." (KSR Opinion at p. 12). Thus, there is no reason to make the asserted combination/modification.

Thus, Wang, Currivan, and Kanterakis, alone or in combination, do not disclose or suggest a controller configured to monitor for an acknowledgement (ACK) message transmitted by a second wireless communication device in response to a message transmitted by said first wireless communication device, and a collision detector that monitors a wireless medium for collisions of said acknowledgement message based on a comparison of an energy level and an energy level threshold, preamble detection, and payload detection, as required by independent claim 1, and do not disclose or suggest monitoring said wireless communication network for an acknowledgement message received in response to transmitted data; and monitoring said wireless communication network to detect a collision of said acknowledgement message based on a comparison of an energy level and an energy level threshold, preamble detection, and payload detection, as required by independent claim 18.

Dependent Claims

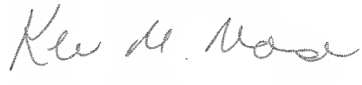
Claims 2-10 and 19-23 are dependent on claims 1 and 18, respectively, and are therefore patentably distinguished over Wang, Currivan, and Kanterakis, alone or in combination, because of their dependency from independent claims 1 and 18 for the reasons set forth above, as well as other elements these claims add in combination to their base claim.

All of the pending claims, i.e., claims 1-10 and 18-23, are in condition for allowance and such favorable action is earnestly solicited.

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below.

The Examiner's attention to this matter is appreciated.

Respectfully submitted,



Date: May 24, 2010

Kevin M. Mason
Attorney for Applicant(s)
Reg. No. 36,597
Ryan, Mason & Lewis, LLP
1300 Post Road, Suite 205
Fairfield, CT 06824
(203) 255-6560